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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,713	08/13/2001	Ed San Mateo	2001 P 11173 US	8925

7590 10/23/2002

Siemens Corporation
Intellectual Property Department
186 Wood Avenue South
Iselin, NJ 08830

EXAMINER

THOMAS, COURTNEY D

ART UNIT PAPER NUMBER

2882

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,713

Applicant(s)

MATEO ET AL.

Examiner

Courtney Thomas

Art Unit

2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on 13 August 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17 2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. This application has been filed with informal drawings that are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
2. The drawings are objected to because the direction arrows indicating the either of two insertion directions as recited in p4, line 12 of the present application is not shown. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the resistor pair must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

4. The abstract of the disclosure is objected to because of the following informalities. Lines 8-9 read: In addition, the connectors and mounting flange are such that they permit[s] the tray to be inserted in a plurality of directions. Examiner notes that the included term "they" would properly convey the intended meaning. Additionally, examiner contends that lines 9-10 are contrary to the function of the device. In particular lines 9-10 read: Finally a coding system is provided that prevents radiation from being delivered if the tray is oriented [correctly]. It is assumed that the intended function of the coding system is to be able to prevent the delivery of

Art Unit: 2882

radiation to an object if the tray is incorrectly oriented within the medical linear accelerator (see also Fig. 4; disclosure p. 5, lines 14-15). Correction is required. See MPEP § 608.01(b).

5. The disclosure is objected to because of the following informalities: As noted above, the disclosure recites a coding system inconsistency (p.3, lines 7-8). Based on Fig. 4 of the supplied drawings, and disclosure p. 5, lines 14-15, it can be concluded that the function of the coding scheme is to prevent radiation delivery in the instance of improper tray orientation.

Appropriate correction is required.

Claim Objections

Claims 5, 10, 13 is objected to because of the following informalities:

Claims 5 and 13 recite: ... a plurality of coded connectors comprising resister pair ... the correct spelling for "resister" is resistor.

Claim 10 (preamble: medical linear accelerator) depends on claim 8 (preamble: a tray). This dependency renders claim 10 ambiguous, as it is unclear what applicants consider being their invention. Examiner contends that the intended dependency of claim 10 is claim 9. Appropriate correction is required.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

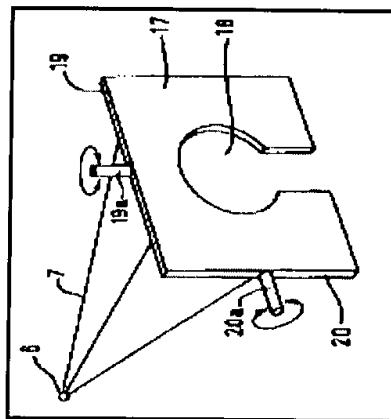
7. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants admitted prior art in view of Maas (U.S. Patent 5,365,566).

Art Unit: 2882

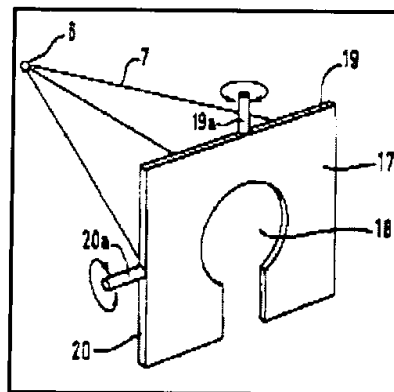
8. As per claim 1, Applicants admitted prior art (herein after referred to as AAPA) discloses an apparatus comprising a tray portion and a coded connector coupled to the tray portion (Fig. 2; p. 2, lines 1-6). AAPA does not explicitly disclose an apparatus comprising a plurality of coded connectors coupled to the tray portion.

9. AAPA teaches an apparatus configured with a coded connector, enabling it to have a predetermined configuration within a receiving slot (p. 2, lines 1-3).

10.



11.



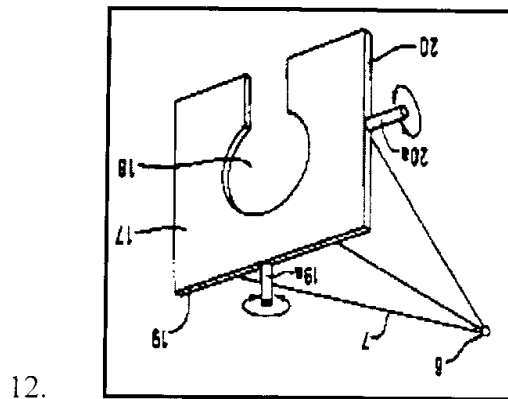


Figure 7 - U.S. Patent 5, 365, 566 to Maas

13. Maas discloses an apparatus comprising means arranged on a diaphragm for orientation and beam shaping of radiation (Fig. 7, above, column 1, lines 61-68, column 2, lines 1-2).

14. It would have been obvious to modify the AAPA such that it incorporated a plurality of coded connectors. One would have been motivated to make such a modification so that the device could be oriented in a plurality of positions, based on the arrangement of the coded connectors as taught by AAPA (Fig. 2; p. 2, lines 1-19) and further supported by the teachings of Maas (Fig. 7, above, column 1, lines 61-68, column 2, lines 1-2). Additionally, it would have been obvious to a practitioner in the art to incorporate a plurality of coded connectors, since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

15. As per claims 2 and 10, AAPA discloses an apparatus comprising a flange that surrounds the tray portion and is coupled between the plurality of coded connectors and the tray portion (Fig. 2).

16. As per claims 3, 4, 6, 7, 11, 12 and 17, AAPA does not explicitly disclose an apparatus comprising first and second connectors; wherein the first coded connector is located along a

Art Unit: 2882

bottom edge of the tray portion and a second coded connector located along a left edge of the tray portion.

17. It would have been obvious to modify the AAPA such that it incorporated first and second connectors; wherein the first coded connector is located along a bottom edge of the tray portion and a second coded connector located along a left edge of the tray portion. One would have been motivated to make such a modification so that the tray could be oriented in a plurality of positions, based on the arrangement of the coded connectors as taught by AAPA (Fig. 2; p. 2, lines 1-19; p6, lines 4-8) and further supported by the teachings of Maas (Fig. 7, above; column 1, lines 61-68, column 2, lines 1-2).

18. As per claims 5, 8, 13 and 18, AAPA discloses an apparatus wherein the plurality of coded connectors comprises a resistor pair (Fig. 2, p.2, lines 4-6).

19. As per claims 9 and 16, AAPA discloses a medical linear accelerator comprising a support gantry (14) and a defining head (12). AAPA does not explicitly disclose an apparatus comprising a tray having a plurality of coded connectors coupled to the tray portion.

20. It would have been obvious to modify the AAPA such that it incorporated a tray having a plurality of coded connectors coupled to the tray portion. One would have been motivated to make such a modification so that tray could be oriented in a plurality of positions within the accelerator, thus providing a variety of treatment orientations as taught by AAPA (Fig. 2; p 1, lines 7-22; p. 2, lines 1-19) and further supported by the teachings of Maas (Fig. 7, above, column 1, lines 61-68, column 2, lines 1-2). Additionally, it would have been obvious to a practitioner in the art to incorporate a plurality of coded connectors coupled to the tray portion.

Art Unit: 2882

since it has been held that mere duplication of essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

21. As per claims 14 and 19, AAPA does not explicitly disclose a method comprising the steps of determining if a coded connector on the beam-block tray is recognized; identifying a mismatch and preventing the delivery of radiation.

22. It would have been obvious to modify the AAPA such that it comprised the steps of determining if the coded connector on the beam-block tray is recognized; identifying a mismatch and preventing the delivery of radiation. One would have been motivated to make such a modification so that radiation is not delivered to healthy tissues of a patient but only to predetermined zones for treatment as taught by AAPA (p.1, lines 20-22).

23. As per claim 15 and 20, AAPA does not explicitly disclose a method comprising the step of alerting a radiation therapist if radiation is not delivered.

24. It would have been obvious to modify the AAPA, such that it incorporated the step of alerting a radiation therapist if radiation is not delivered. One would have been motivated to make such a modification so that an operator is made aware of the failure of the device to deliver radiation, while indicating the enactment of a radiation safety procedure.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Courtney Thomas whose telephone number is (703) 306-0473. The examiner can normally be reached on M - F (9 am - 5 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305 3492. The fax phone numbers for the

Application/Control Number: 09/929,713

Page 8

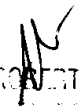
Art Unit: 2882

organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

Courtney Thomas

October 21, 2002


ROBERT H. KIM
SUSAN L. KIM
RECEIVED OCT 22 2002